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Title: SYSTEM AND METHOD FOR MANAGING
UNINTERRUPTIBLE POWER SUPPLY SYSTEMS
Filed: March 22, 2004
Inventor(s): Brad Hammond, et al.
Atty Docket No.: 18133-224CON
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Sheet 1 of 24

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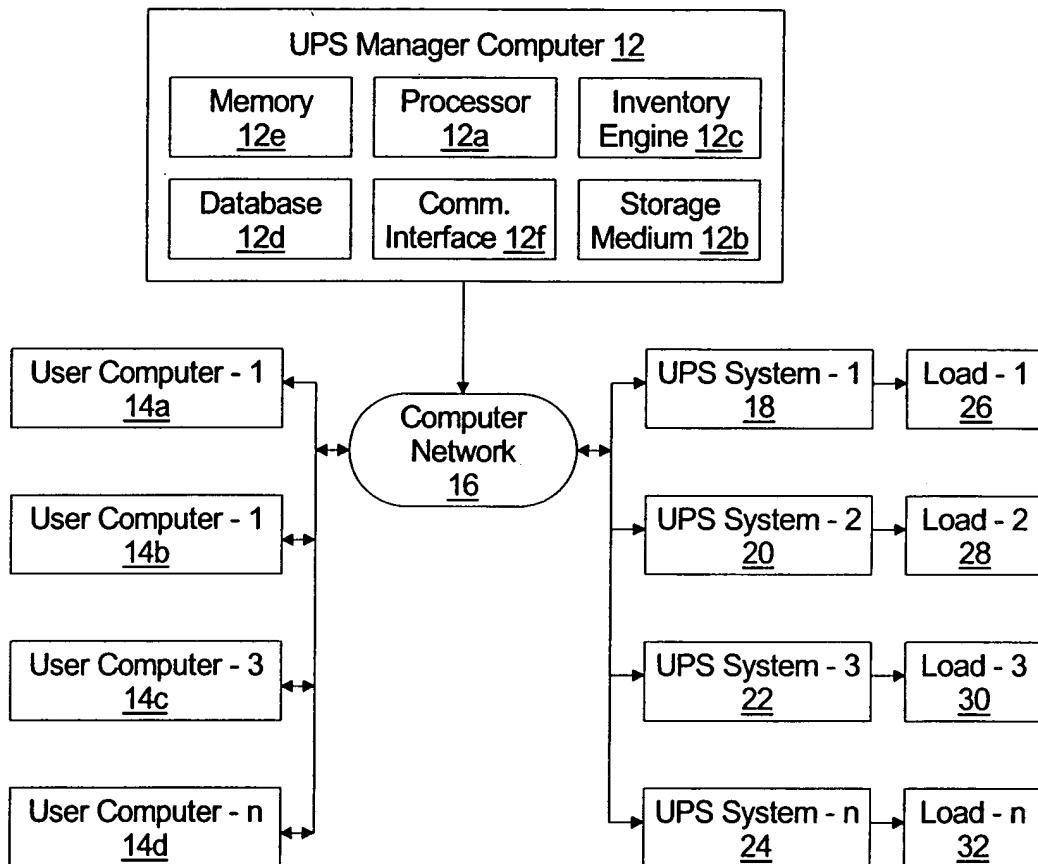


Figure 1a

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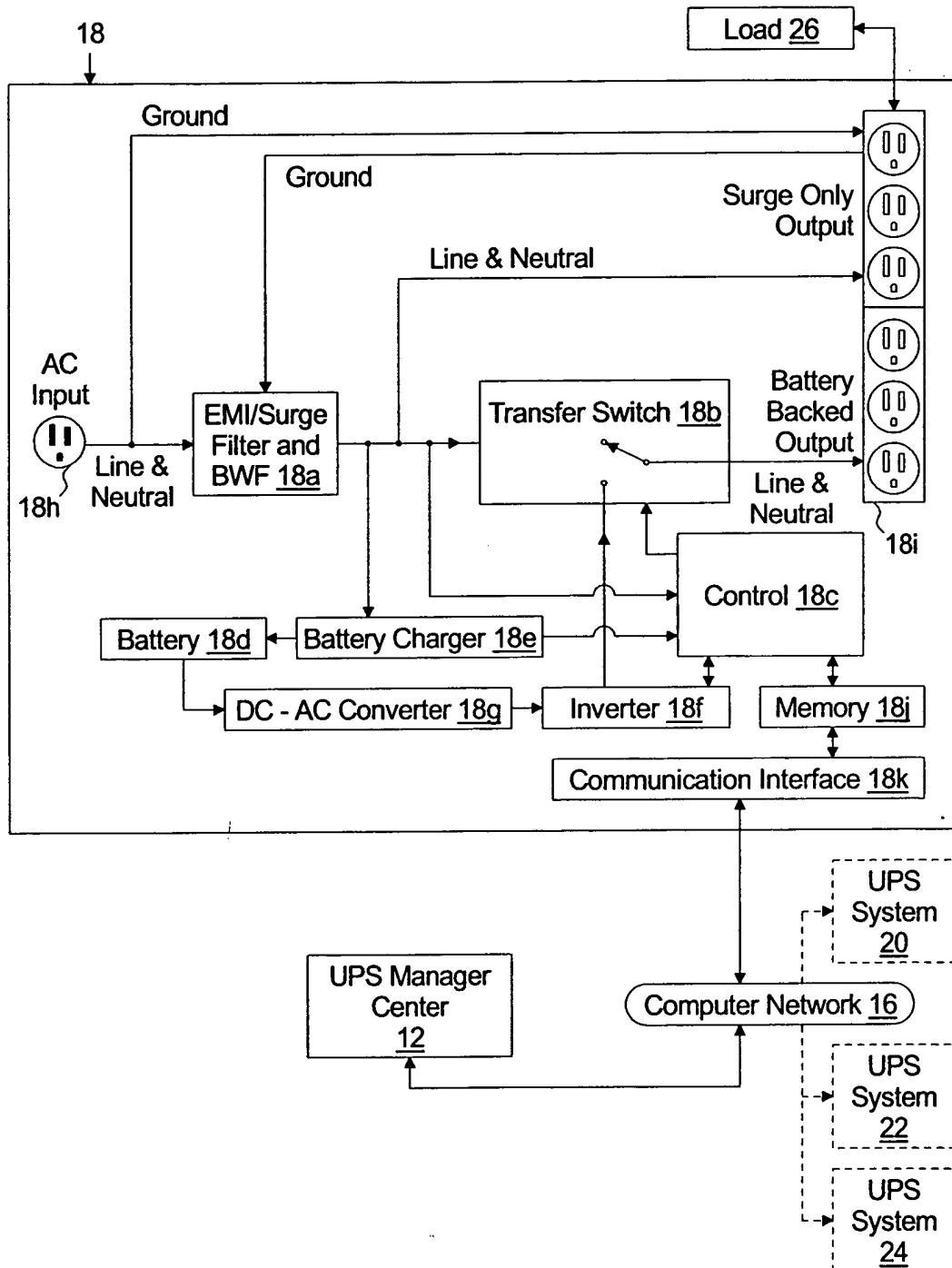


Figure 1b

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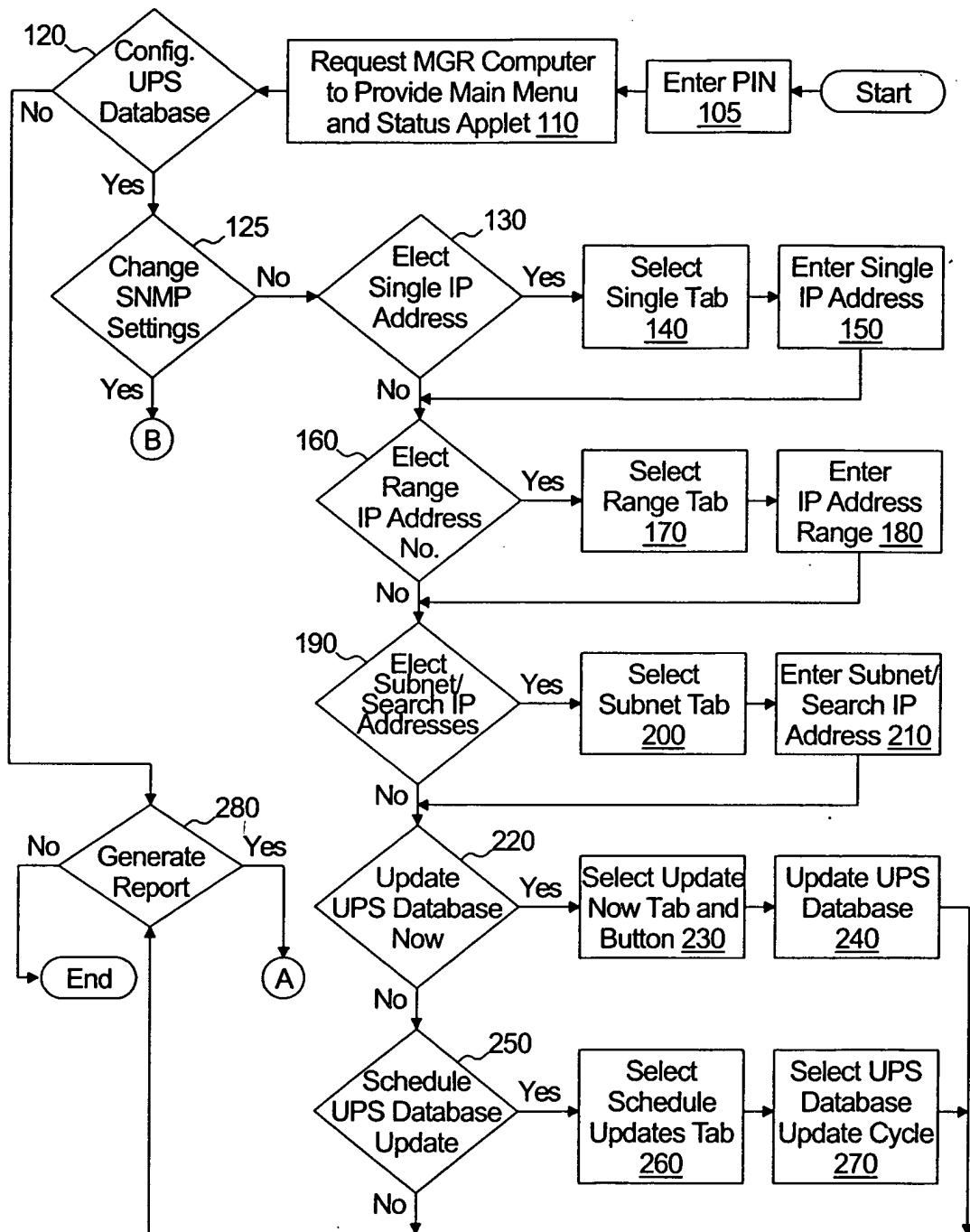


Figure 2a

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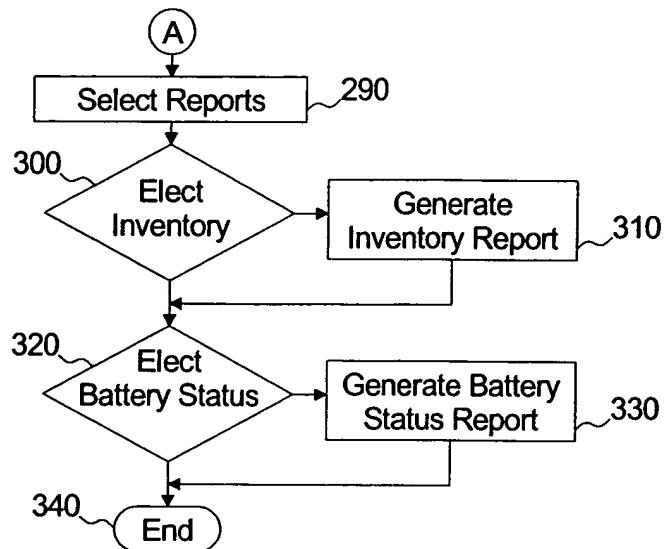


Figure 2b

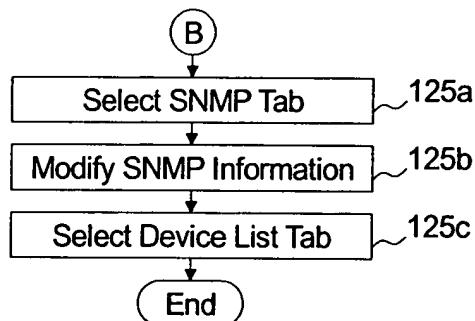


Figure 2c

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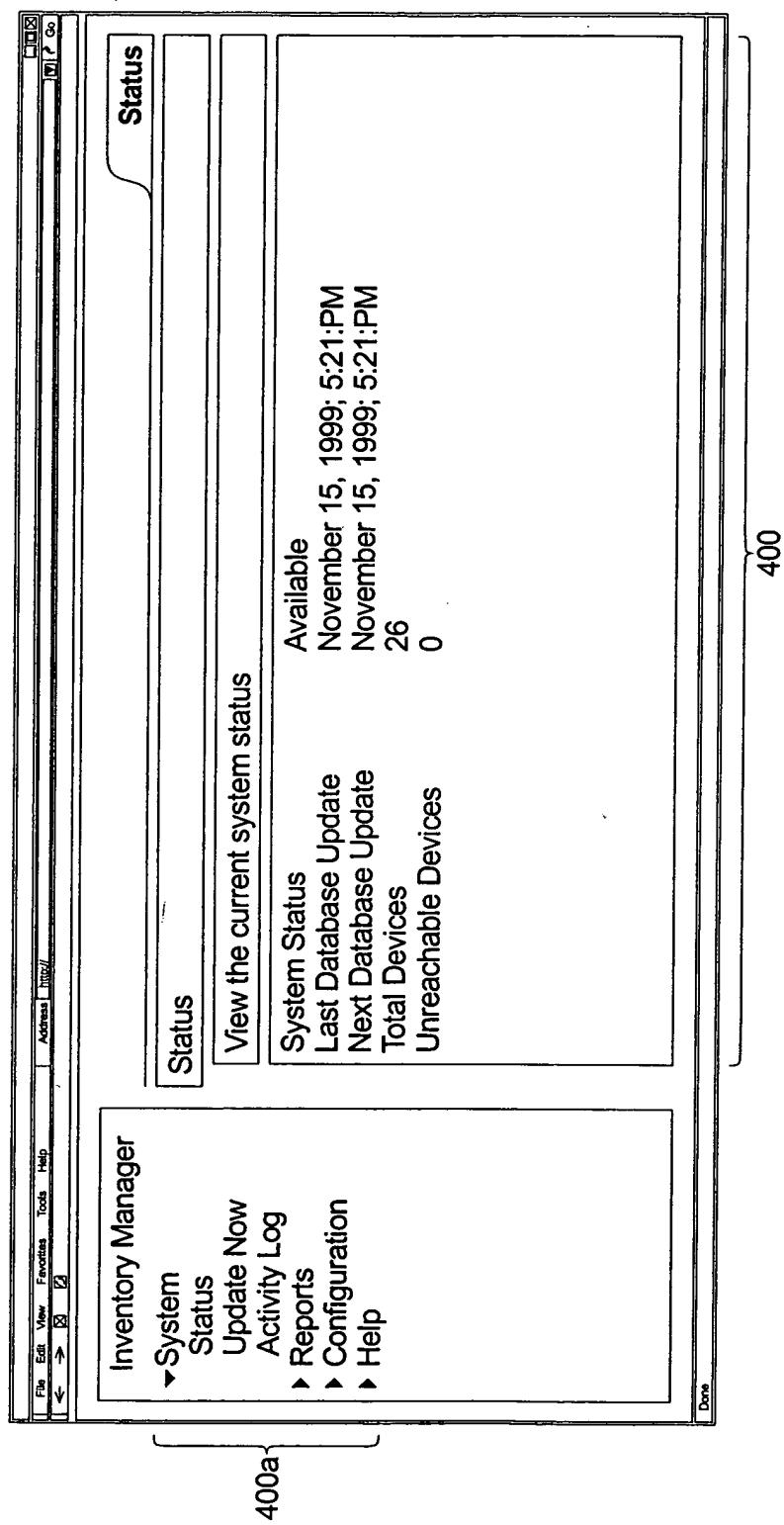


Figure 3

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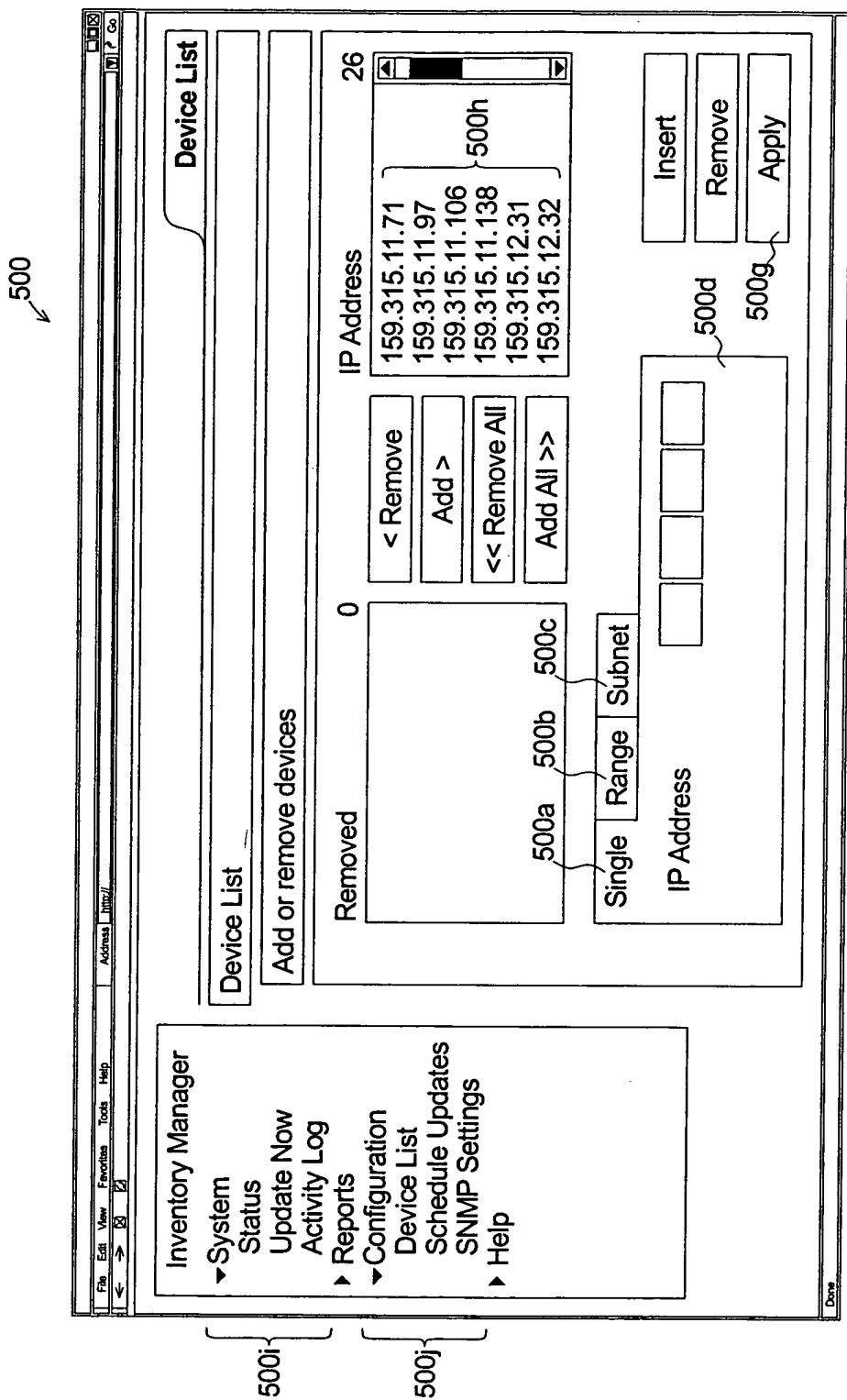


Figure 4a

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500e

Single	Range	Subnet
IP Address Start		
IP Address End		
<input type="button" value="Insert"/> <input type="button" value="Remove"/> <input type="button" value="Apply"/>		
500g		

Figure 4b

500f

Single	Range	Subnet
IP Address		
<input type="button" value="Insert"/> <input type="button" value="Remove"/> <input type="button" value="Apply"/>		
500g		

Figure 4c

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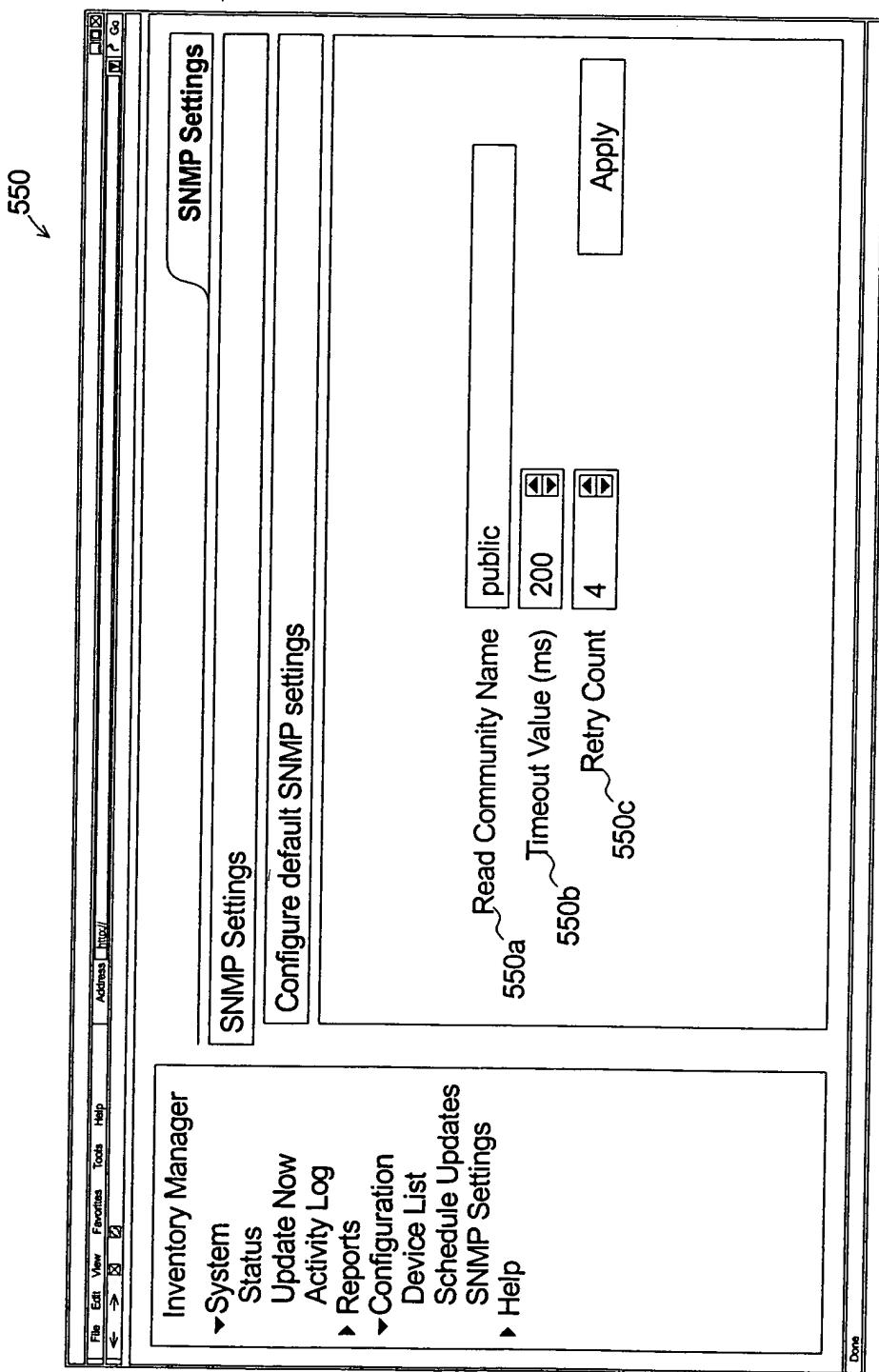


Figure 4d

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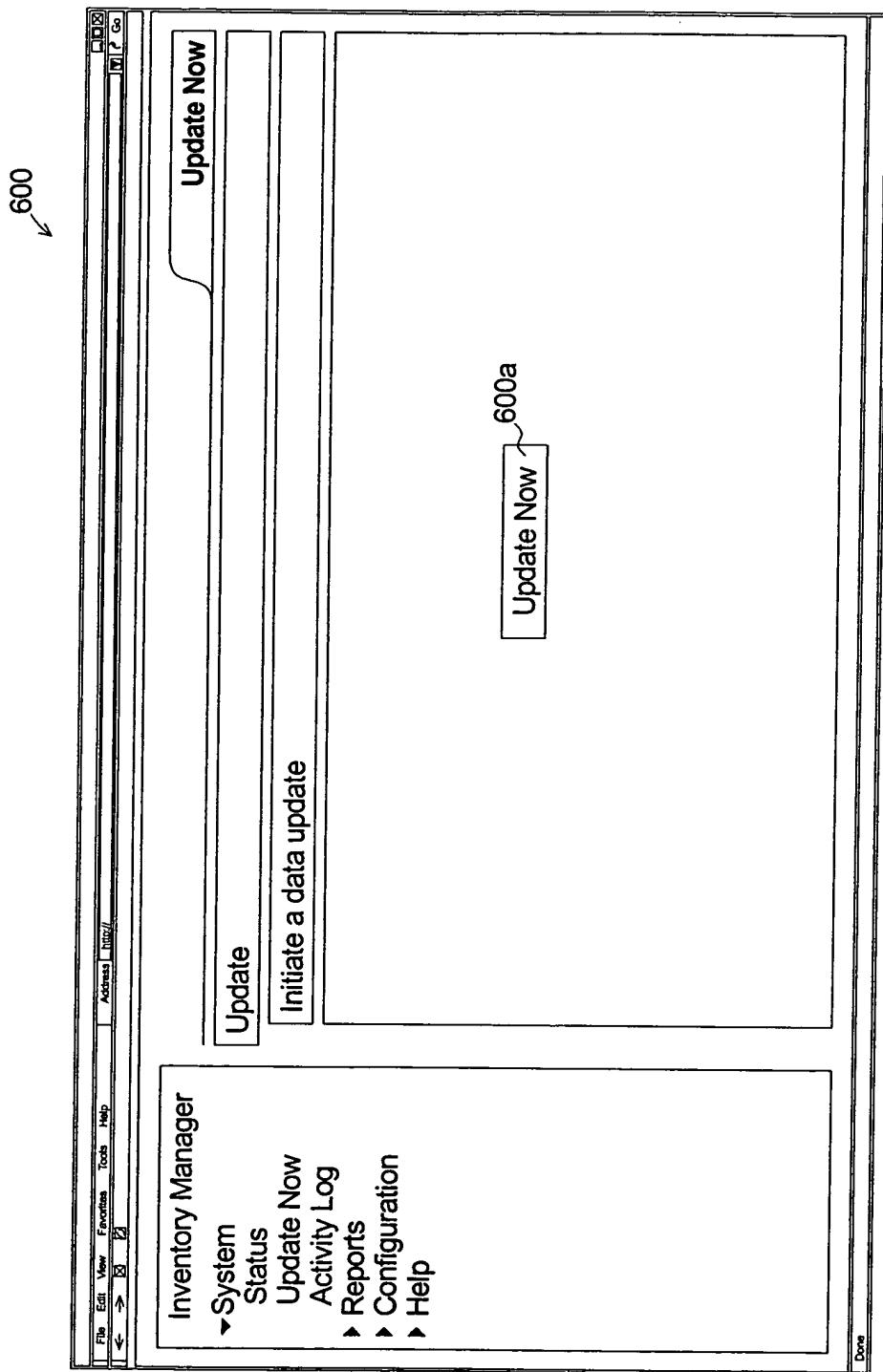


Figure 5

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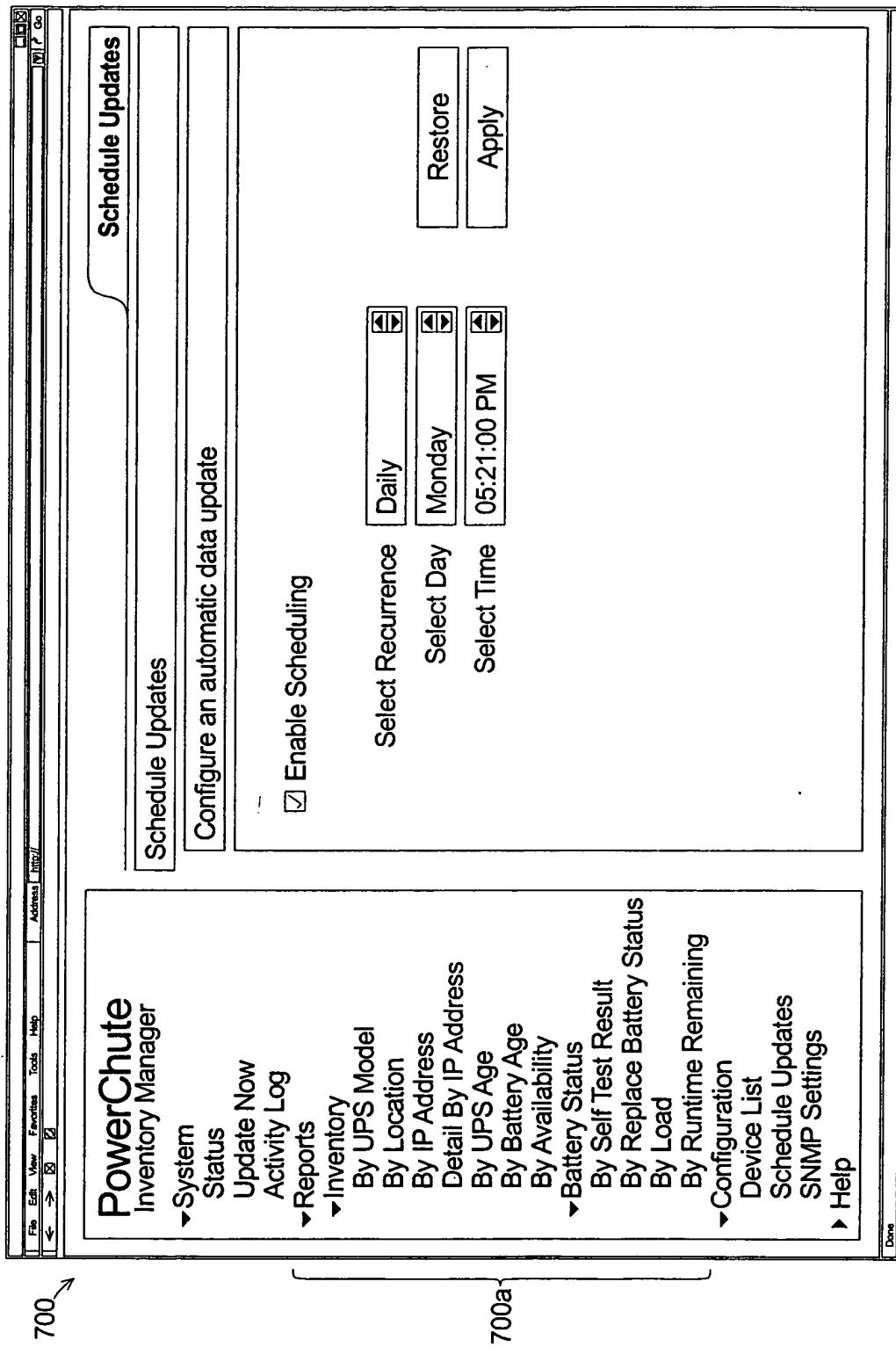


Figure 6

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The screenshot shows a software application window titled "Inventory Manager" with a sub-section titled "Inventory Report: UPS Model". The sub-section displays the following information:

Inventory Manager
Generation Date: 03/15/2000

This page groups your UPS systems by UPS Model Family. Double-click on on a model name to access pages that identify and describe each UPS within that family.

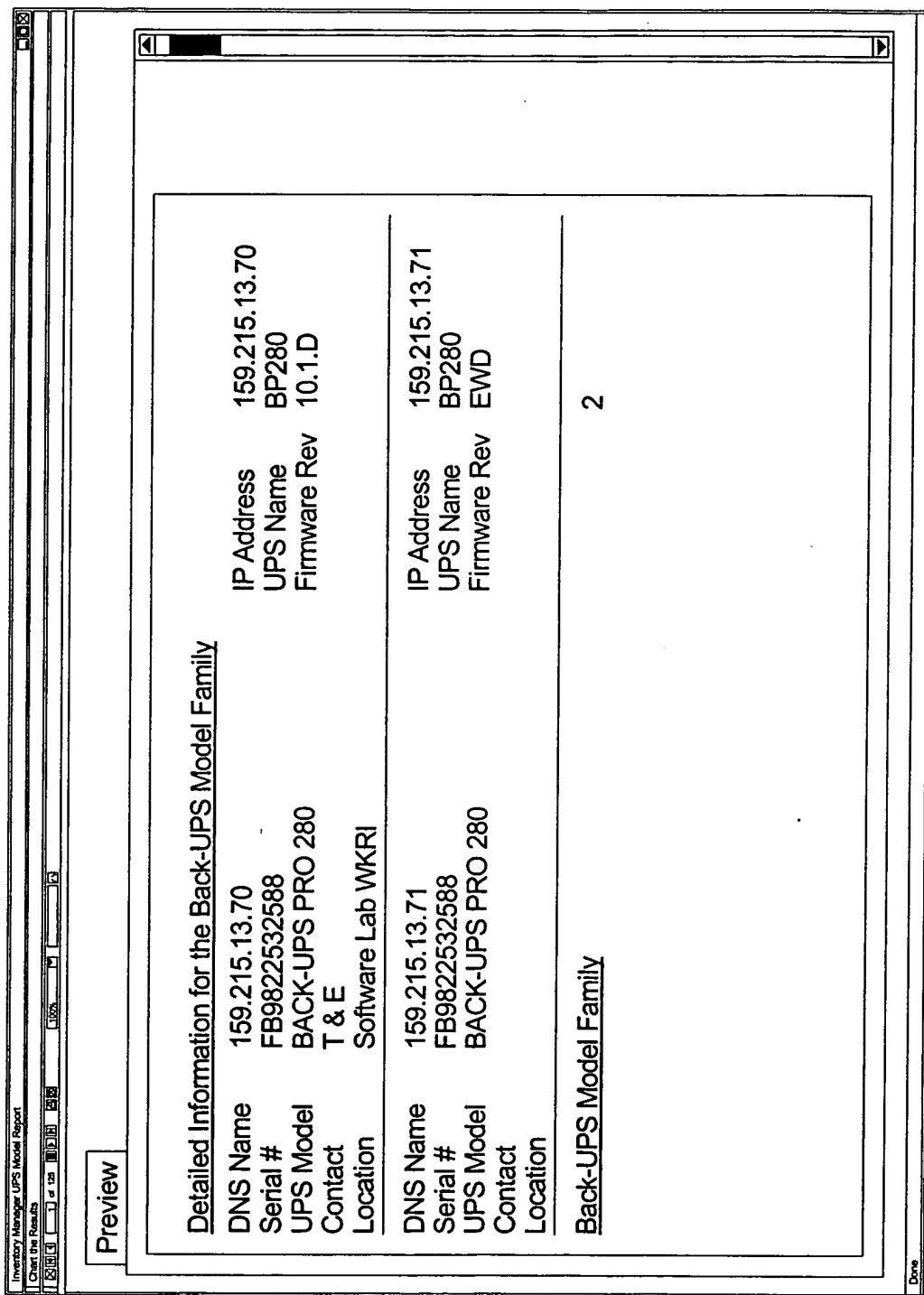
UPS Model Family

	Quantity
Back-UPS Model Family	2
Symmetra Model Family	5
Smart-UPS Model Family	93
Total of all devices	100 Devices

At the bottom left of the main window, there is a "Preview" button. The status bar at the bottom of the window shows the number "800" with an arrow pointing to it.

Figure 7

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900

Figure 8

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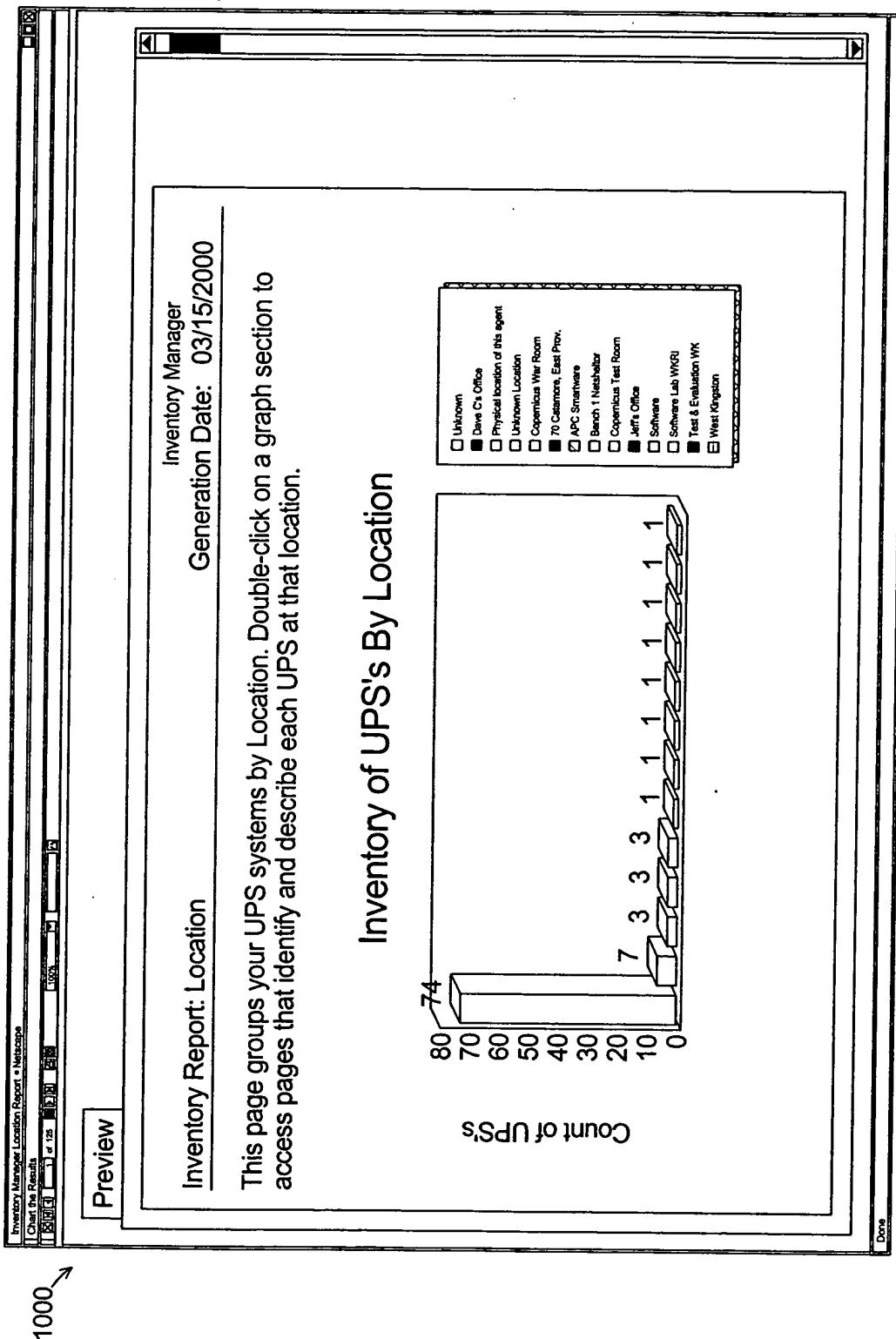


Figure 9

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Inventory Manager Location Report - Netscape

View the Report

Page 1 of 125 | 100% | Print | Back | Next |

Preview **Dave C's Office**

Detailed Information for Location: Dave C's Office

DNS Name	159.215.11.138	IP Address	159.215.11.138
Serial #	ws9640568671	UPS Name	Power
UPS Model	Smart-UPS 700	Firmware Rev	50.9.D
Contact	Dave C.		
DNS Name	159.215.11.211	IP Address	159.215.11.211
Serial #	10000801134441	UPS Name	UPS_B
UPS Model	Smart-UPS 1400	Firmware Rev	70.9.D
Contact	Dave C.		
DNS Name	192.9.237.62	IP Address	192.9.237.62
Serial #	10000801134441	UPS Name	UPS_B
UPS Model	Smart-UPS 1400	Firmware Rev	70.9.D
Contact	Dave C.		
DNS Name	192.9.237.63	IP Address	192.9.237.63
Serial #	10000801134441	UPS Name	UPS_B
UPS Model	Smart-UPS 1400	Firmware Rev	70.9.D
Contact	Dave C.		
DNS Name	192.9.237.64	IP Address	192.9.237.64
Serial #	10000801134441	UPS Name	UPS_B
UPS Model	Smart-UPS 1400	Firmware Rev	70.9.D

Done

1100 →

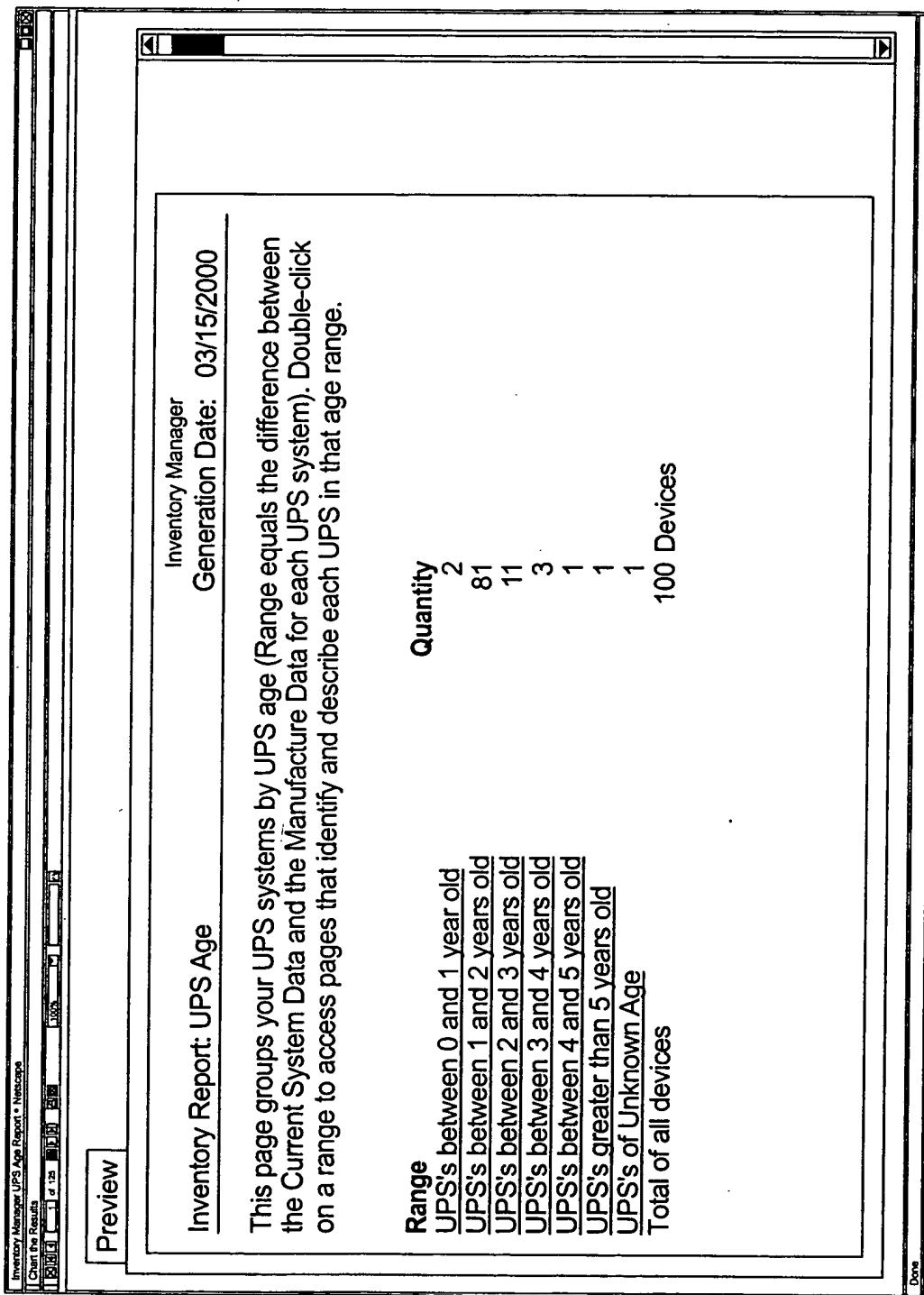
Figure 10

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IP Address	DNS Name (if available)	UPS Model	UPS Name	UPS Serial #	UPS Firm
159.215.1.0	Oyser.software.apcc.com0	SmartUPS 700	DATALOAD	123456	GWD
159.215.1.1	Orca0	BackUPSPro 450	DATALOAD	123456	GWD
159.215.1.2	Flesh0	SmartUPS 2200 RMXL	DATALOAD	123456	GWD
159.215.1.3	Mustang.software.apcc	Symmetra	DATALOAD	123456	GWD
159.215.1.4	Sparky0	SmartUPS 450	DATALOAD	123456	GWD
159.215.1.5	Barbarosa0	SmartUPS 700	DATALOAD	123456	GWD
159.215.1.6	Batman0	BackUPSPro 450	DATALOAD	123456	GWD
159.215.1.7	Boots0	SmartUPS 2200 RMXL	DATALOAD	123456	GWD
159.215.1.8	Brewmaster0	Symmetra	DATALOAD	123456	GWD
159.215.1.9	Buzzard0	SmartUPS 450	DATALOAD	123456	GWD
159.215.1.10	Condor0	SmartUPS 700	DATALOAD	123456	GWD
159.215.1.11	Danglers0	BackUPSPro 450	DATALOAD	123456	GWD
159.215.1.12	Defiant0	SmartUPS 2200 RMXL	DATALOAD	123456	GWD
159.215.1.13	Elvira0	Symmetra	DATALOAD	123456	GWD
159.215.1.14	Gink0	SmartUPS 450	DATALOAD	123456	GWD
159.215.1.15	Hamlet0	SmartUPS 700	DATALOAD	123456	GWD
159.215.1.16	Integrity0	BackUPSPro 450	DATALOAD	123456	GWD
159.215.1.17	Lafayetto	SmartUPS 2200 RMXL	DATALOAD	123456	GWD

Figure 11

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Inventory Manager
Generation Date: 03/15/2000

Inventory Report: UPS Age

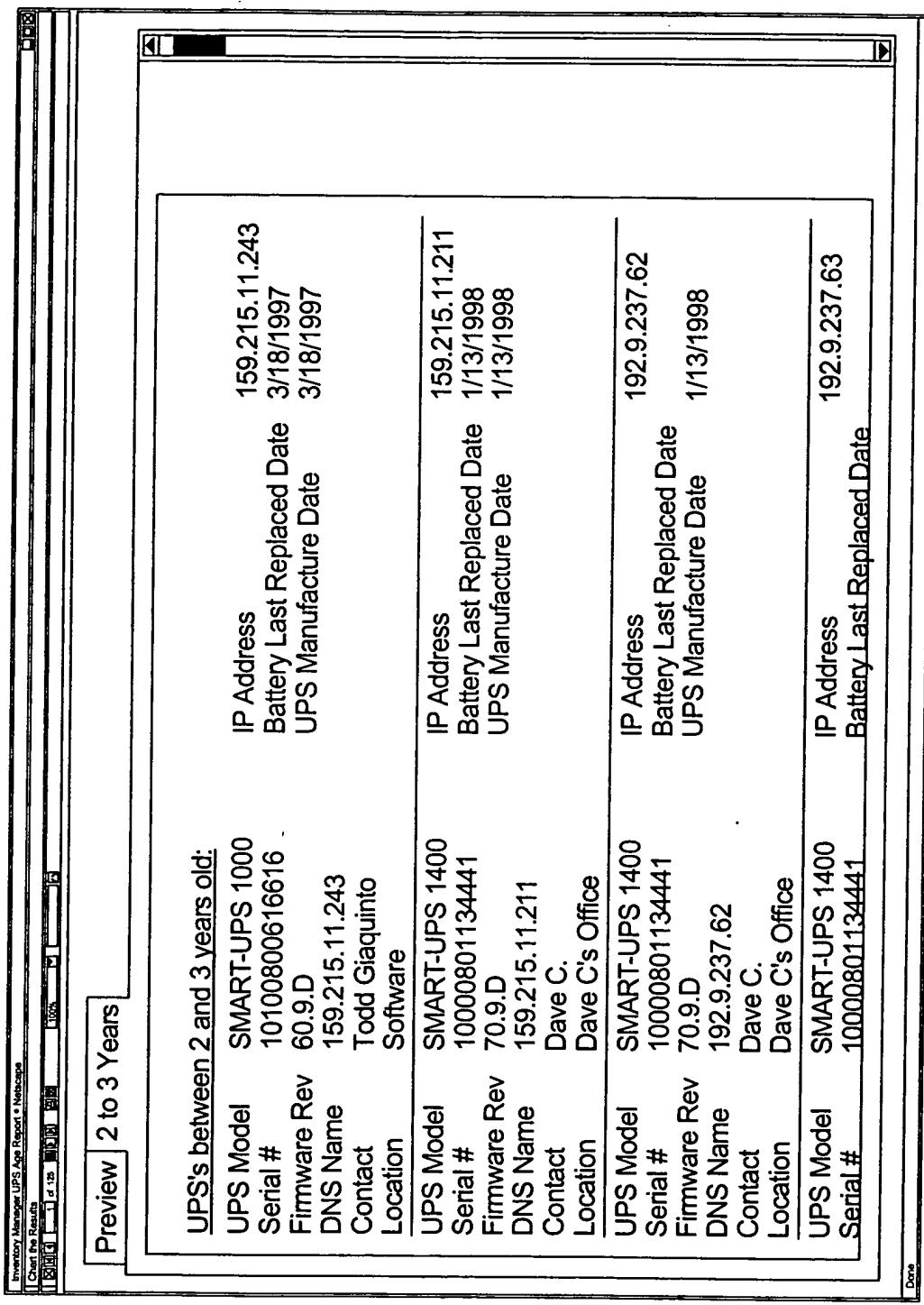
This page groups your UPS systems by UPS age (Range equals the difference between the Current System Data and the Manufacture Data for each UPS system). Double-click on a range to access pages that identify and describe each UPS in that age range.

Range	Quantity
UPS's between 0 and 1 year old	2
UPS's between 1 and 2 years old	81
UPS's between 2 and 3 years old	11
UPS's between 3 and 4 years old	3
UPS's between 4 and 5 years old	1
UPS's greater than 5 years old	1
UPS's of Unknown Age	1
Total of all devices	100 Devices

1300 →

Figure 12

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UPS's between 2 and 3 years old:					
UPS Model	SMART-UPS 1000	IP Address	159.215.11.243	Battery Last Replaced Date	3/18/1997
Serial #	10100800616616	UPS Manufacture Date	3/18/1997		
Firmware Rev	60.9.D				
DNS Name	159.215.11.243				
Contact	Todd Giaquinto				
Location	Software				
UPS Model	SMART-UPS 1400	IP Address	159.215.11.211	Battery Last Replaced Date	1/13/1998
Serial #	10000801134441	UPS Manufacture Date	1/13/1998		
Firmware Rev	70.9.D				
DNS Name	159.215.11.211				
Contact	Dave C.				
Location	Dave C's Office				
UPS Model	SMART-UPS 1400	IP Address	192.9.237.62	Battery Last Replaced Date	1/13/1998
Serial #	10000801134441	UPS Manufacture Date	1/13/1998		
Firmware Rev	70.9.D				
DNS Name	192.9.237.62				
Contact	Dave C.				
Location	Dave C's Office				
UPS Model	SMART-UPS 1400	IP Address	192.9.237.63	Battery Last Replaced Date	
Serial #	10000801134441				

1400 →

Figure 13

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Inventory Manager Unavailable Devices Report - Netscape

1500

Preview

Inventory Report: Unavailable Devices

Inventory Manager
Generation Date: 03/15/2000

This report identifies and describes the UPS systems that did not respond to the last data update. The information provided about the UPS systems was stored in the database during the last update to which each UPS did respond.

Total number of devices not responding 3 Devices

DNS Name	159.215.13.70	IP Address	159.215.13.70
Serial #	FB9822532588	UPS Name	BP280
UPS Model	BACK-UPS PRO 280	Firmware Rev	10.1.D
Last Update	03/07/2000 12:57:09 PM		
Contact	T & E		
Location	Software Lab WKRI		

DNS Name	159.215.11.134	IP Address	159.215.11.134
Serial #	20033435	UPS Name	UPS_IDEN
UPS Model	Smart-UPS 400	Firmware Rev	4QD
Last Update	03/07/2000 4:07:20 PM		
Contact			
Location			

DNS Name	159.215.13.75	IP Address	159.215.13.75
Serial #	ED9833002438	UPS Name	TEST

Figure 14

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Inventory Manager
Generation Date: 03/15/2000

Status Report: Self-Test Result

This page groups the UPS systems by Self-Test Result reported during the last data update, with the groups defined by the type of Self-Test Result. Double-click on a self-test result to access pages that identify and describe each UPS that reported that type of result.

Self-Test Result	Quantity
<u>Failed</u>	2
<u>Passed</u>	94
<u>Unknown</u>	4
<u>Total</u>	100 Devices

Inventory Manager Self-Test Result Report - Navigation
Print the Results
1600 of 1600

Preview

Figure 15

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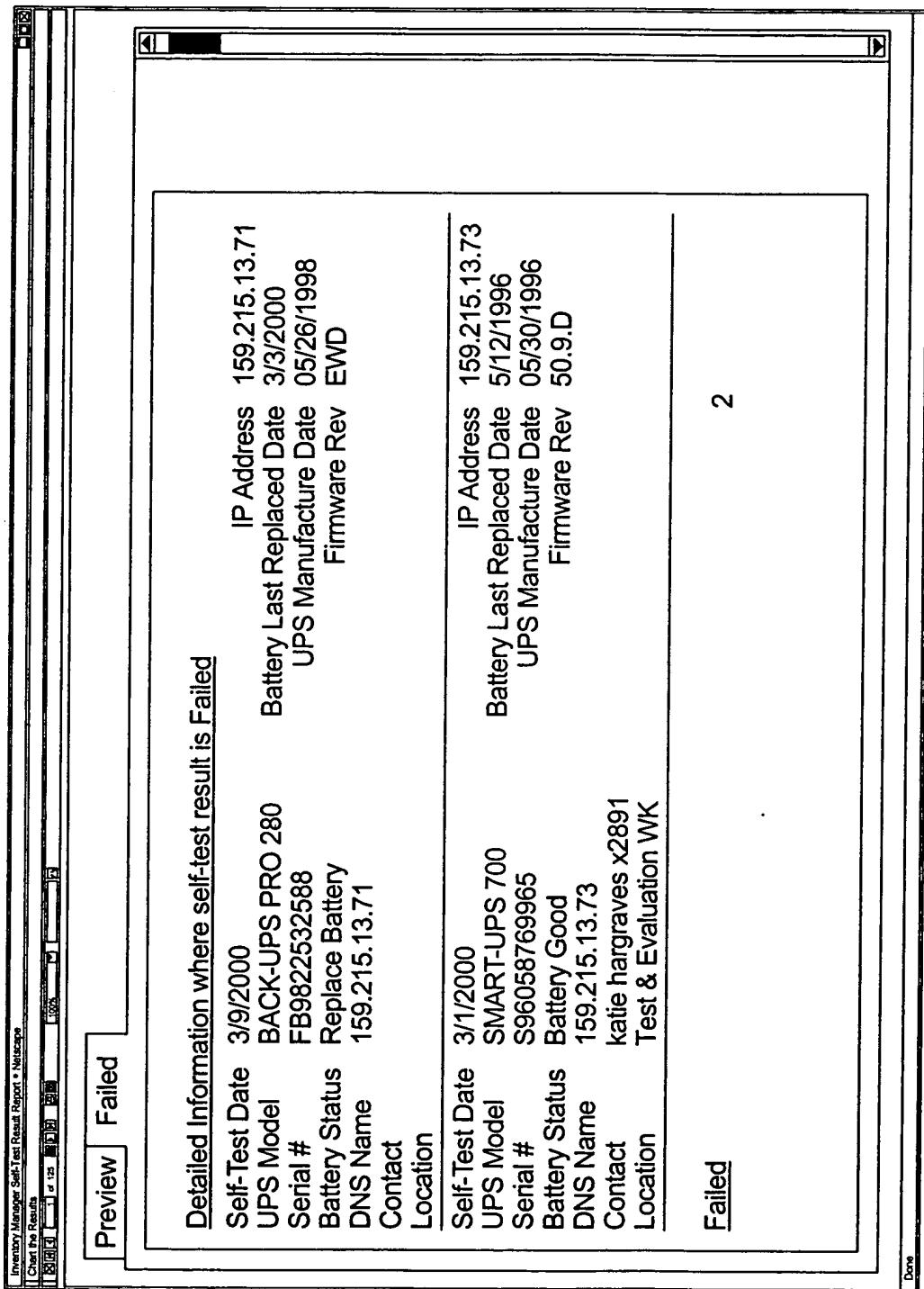


Figure 16

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Inventory Manager Bad Battery Indicator Report - Netscape
Change the Results
Print
1800

Preview

Status Report: Bad Battery Indicator

Inventory Manager
Generation Date: 03/15/2000

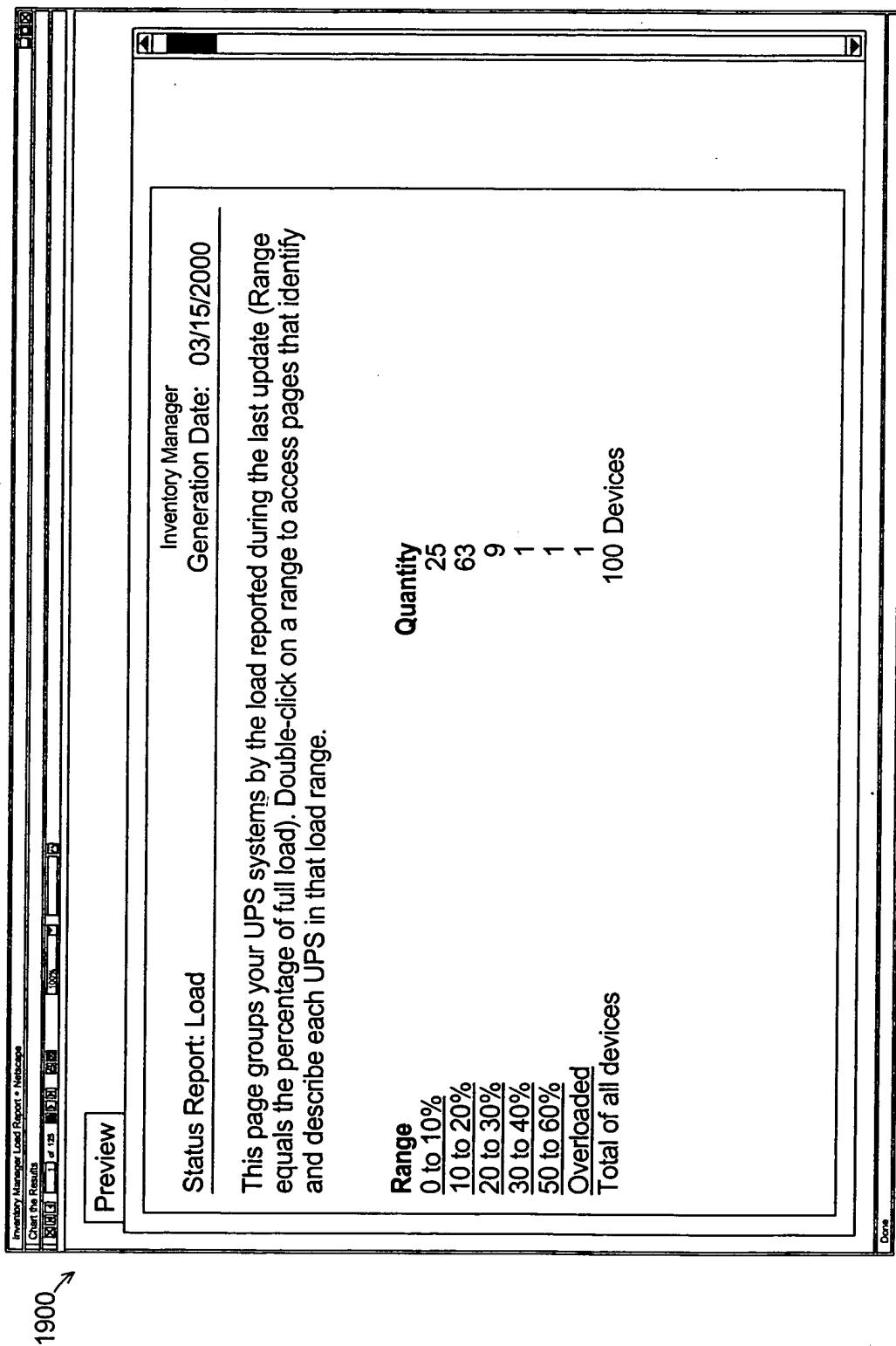
This report identifies and describes the UPS systems that reported that a battery needs replacing during the last update.

Total number of UPS's reporting a bad battery 1 Device

UPS Model	BACK-UPS PRO 280	IP Address	159.215.13.71
Serial #	FB9822532588	Battery Last Replaced Date	03/03/2000
Self-Test Date	3/9/2000	Manufacture Date	05/26/1998
Self-Test Result	Failed		
DNS Name	159.215.13.71		
Contact			
Location			

Figure 17

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1900 →

Figure 18

UPS's at 10 to 20% load					
% Load	11.00%	Runtime	95 minutes		
Serial #	NS9851165147	IP Address	159.215.12.33		
UPS Model	SMART-UPS 700	UPS Name	UPS_IDEN		
Firmware Rev	GWD				
DNS Name	159.215.12.33				
Contact	Unknown				
Location	Unknown				
% Load	12.00%	Runtime	89 minutes		
Serial #	X9851013429	IP Address	192.9.237.3		
UPS Model	SMART-UPS 1400 RM	UPS Name	UPS_IDEN		
Firmware Rev	72.11.D				
DNS Name	192.9.237.3				
Contact	Unknown				
Location	Unknown				
% Load	12.00%	Runtime	89 minutes		
Serial #	X9851013429	IP Address	192.9.237.4		
UPS Model	SMART-UPS 1400 RM	UPS Name	UPS_IDEN		
Firmware Rev	72.11.D				
DNS Name	192.9.237.4				
Contact	Unknown				

Figure 19

2000

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Inventory Manager Runtime Remaining Report - Netscape

Check the Results

Print

Help

Help

2100

Preview

Status Report: Runtime Remaining

Inventory Manager
Generation Date: 03/15/2000

This report identifies how much battery runtime (Runtime) each UPS reported it had remaining when the last update occurred. If a UPS had not been on battery recently (to compensate for a power problem or as part of a runtime calibration), the runtime reported should indicate the maximum runtime available to that UPS during normal operation.

Runtime	30 minutes
Serial#	ED983169013934
UPS Model	Symmetra RM
Firmware Rev	280.112.1
DNS Name	159.215.7.107
Contact	Scott Giglio x6408
Location	70 Catamore, East Prov.

Runtime	32 minutes
Serial#	S96058769965
UPS Model	SMART-UPS 700 50.9.D
Firmware Rev	159.215.13.73
DNS Name	katie.hargraves@2891.Test & Evaluation WK
Contact	katie.hargraves@2891.Test & Evaluation WK
Location	70 Catamore, East Prov.

Figure 20